

December 1991

VENEZUELAN  
ENERGY

Oil Production and  
Conditions Affecting  
Potential Future U.S.  
Investment



National Security and  
International Affairs Division

B-246810

December 12, 1991

The Honorable John Glenn  
Chairman, Committee on  
Governmental Affairs  
United States Senate

The Honorable Joseph I. Lieberman  
United States Senate

Military and political instability in the Persian Gulf region exposes the United States to oil supply disruptions. Therefore, the Department of Energy's February 1991 report entitled U.S. National Energy Strategy calls for the diversification of U.S. oil sources and a greater reliance on imports from countries outside the Persian Gulf, such as Venezuela. However, since 1976, when Venezuela nationalized its oil and gas industry, there has been no U.S. or other foreign investment in oil exploration, production, or refining in Venezuela.

In response to your request, we examined Venezuela's petroleum industry and conditions affecting potential future U.S. investment in Venezuela's petroleum sector. More specifically, our objectives were to (1) obtain information on recent increases in Venezuelan oil production and the primary factors affecting continued increases through 1996, (2) assess the investment reforms that Venezuela has recently made in its petroleum industry and U.S. petroleum companies' response to these reforms, (3) identify the major impediments discouraging U.S. companies from investing in Venezuela's petroleum industry, (4) ascertain the factors encouraging U.S. investment in Venezuela's petroleum industry, and (5) review U.S. government efforts to support Venezuela's energy sector.

## Background

During 1990, Venezuela provided about 13 percent of the crude oil and petroleum products imported by the United States; it ranked second behind Saudi Arabia as a source of U.S. oil imports. These exports came from the production of conventional crude oil,<sup>1</sup> of which Venezuela has about 32 billion barrels of proven reserves.<sup>2</sup> Venezuela also has the largest

<sup>1</sup>According to the U.S. Geological Survey, "conventional" crude oil includes light, medium, and heavy crude oils, which are broadly considered to be economically recoverable by established primary recovery techniques; the extra-heavy oil of the Orinoco Oil Belt of Venezuela is excluded from this definition.

<sup>2</sup>Crude oil reserves are classified as "proven" if they are recoverable under existing economic and operating conditions.

reserves of extra-heavy crude oil in the world. The Venezuelan government estimates that Venezuela has about 28 billion barrels of proven extra-heavy crude oil reserves and approximately 270 billion barrels of potentially recoverable extra-heavy crude oil reserves.

Since 1976, the Venezuelan government has controlled the right to explore, produce, refine, transport, and market all crude oil and petroleum products in Venezuela. Petroleos de Venezuela, S.A. (PDVSA), a government-owned company, is responsible for all of Venezuela's petroleum operations. In addition to other holdings, PDVSA owns three vertically integrated oil companies in Venezuela—Lagoven, Maraven, and Corpoven—each with its own exploration, production, refining, transportation, and marketing operations. PDVSA operates under policies established by the Venezuelan Ministry of Energy and Mines. The company consults with and informs Venezuela's Planning Ministry and the Venezuelan Central Bank with regard to its investment plans to ensure that its operations are consistent with the development plans and policies of the nation.

## Results in Brief

Venezuela's oil production peaked in 1970, declined through 1985, and since then has increased by about 21 percent through 1990. The primary factors affecting continued increases in production through 1996 include PDVSA's ability to obtain investment capital, the cost of producing and refining heavy and extra-heavy crude oil, and the level of production quotas imposed by the Organization of Petroleum Exporting Countries (of which Venezuela is a member).

Revising prior policies, Venezuela undertook a series of policy reforms in 1991 to encourage some foreign and private investment in petroleum-related joint ventures. PDVSA created the Office of Strategic Associations to negotiate joint ventures, and the Venezuelan government reduced taxes for producing and refining heavy and extra-heavy crude oil. However, these reforms have not yet succeeded in attracting U.S. investment in oil exploration, production, or refining in Venezuela.

Representatives for 22 U.S. petroleum companies cited several reasons for their company's reluctance to invest in Venezuela. For example, the representatives stated that there was an absence of clear guidelines (1) explaining the nature of activities foreign companies could engage in and (2) stipulating the contractual terms the companies must abide by

when participating in these activities. The representatives considered the requirement for Venezuelan congressional authorization of foreign investments and the high tax rate on petroleum-related activities to be significant deterrents. Other obstacles were the lack of a U.S.-Venezuelan tax treaty, concerns over the security of foreign assets in Venezuela's petroleum sector, and the absence of effective judicial protection against actions taken by the Venezuelan government—such as the unavailability of international arbitration for settling disputes between foreign investors and the government of Venezuela.

Should the investment impediments identified by these U.S. companies be resolved, several conditions provide strong incentives for U.S. investment in Venezuela's petroleum industry. Venezuela offers abundant oil reserves, an established petroleum infrastructure, a favorable location, a reliable source of oil, and a stable democratic government.

U.S. agencies have undertaken a variety of efforts to support Venezuela's energy sector. For example, the U.S. Export-Import Bank granted credit guarantees for U.S. petroleum-related exports, the U.S. Trade and Development Program partially funded a feasibility study for the construction of refineries in Venezuela, the Department of Commerce promoted petroleum-related trade seminars and trade shows, and the U.S. and Venezuelan governments signed a bilateral framework agreement to establish more routine trade and investment consultations. In addition, to enhance energy cooperation, the Department of Energy has held bilateral consultations and performed research and development with its Venezuelan counterpart. Appendix I provides more details about the Venezuelan petroleum industry and conditions affecting potential future U.S. investment in that industry.

## Scope and Methodology

Information provided in this report came from the following sources: the Departments of State, Energy, Commerce, and the Treasury; the Office of the U.S. Trade Representative; the U.S. Export-Import Bank; the U.S. Geological Survey; the U.S. Embassy in Caracas; the U.S. Trade and Development Program; U.S. petroleum experts; representatives from U.S. petroleum companies; the Venezuelan Ministry of Energy and Mines; PDVSA; Lagoven, S.A.; the Venezuelan Congress; the Venezuelan Embassy in Washington, D.C.; and the Petroleum Chamber of Venezuela. We also obtained information on Venezuelan decrees and legislation governing foreign investment in the petroleum industry, and reviewed independent

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studies that discuss the benefit of investing in Venezuela's oil sector. Information on Venezuelan legal matters does not reflect original analysis but was obtained from Venezuelan and U.S. government officials.

With respect to the representatives from U.S. petroleum companies, we developed a sample of 45 companies to determine if they would be interested in investing in Venezuela. Of these companies, 22 provided information included in this report. (App. II lists these companies.) To develop our original sample of 45 companies, we gathered information from the Oil and Gas Journal, the Department of Commerce, and PDVSA. For example, to select major U.S. petroleum companies, we searched in the Oil and Gas Journal and chose 20 companies listed as having the largest total assets in 1989. We also selected 4 other petroleum companies that had participated in the Secretary of Commerce's January 1991 Business Development Mission to Venezuela. In addition, we took a random sample of 21 companies from PDVSA's list of 77 U.S. companies interested in reactivating mature oil fields in Venezuela.

We performed our work from March through December 1991 in accordance with the generally accepted government auditing standards. As requested, we did not obtain official agency comments on this report. However, we discussed the information presented in this report with responsible program officials from the Departments of State, Commerce, Energy, and the Treasury; the Office of the U.S. Trade Representative; the U.S. Export-Import Bank; the U.S. Trade and Development Program; the U.S. Embassy in Caracas; PDVSA; the Venezuelan Embassy in Washington, D.C.; and the Venezuelan Ministry of Energy and Mines. Their comments have been incorporated in the report where appropriate.

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As agreed with your offices, unless you publicly announce its contents earlier, we plan no further distribution of this report until 30 days from its date. At that time, we will send copies to the Secretaries of State, Commerce, Energy, and the Treasury; the U.S. Trade Representative; the Chairman of the U.S. Export-Import Bank; and other interested congressional committees. We will also make copies available to others upon request.

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Please contact me on (202) 275-4812 if you or your staff have any questions concerning this report. The major contributors to this report are listed in appendix III.

*Allan I. Mendelowitz*

Allan I. Mendelowitz, Director  
International Trade, Energy,  
and Finance Issues

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## Abbreviations

GAO	General Accounting Office
OPEC	Organization of Petroleum Exporting Countries
PDVSA	Petroleos de Venezuela, S.A.

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# Venezuelan Petroleum Industry and Conditions Affecting Potential Future U.S. Investment

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Many factors have made Venezuela attractive to the United States as an alternative oil source to the Persian Gulf. During 1990, Venezuela provided about 13 percent of the crude oil and petroleum products imported by the United States. Venezuela plans to steadily increase its oil production through 1996.

Since 1976, when Venezuela nationalized its oil and gas industry, U.S. petroleum companies have not invested in oil exploration, production, or refining in Venezuela. While Venezuela adopted reforms in 1991 intended to encourage joint venture participation in these areas, impediments to investment exist, and the 1991 reforms have not been sufficient to bring about U.S. investment. Nevertheless, should the existing investment impediments be removed, Venezuela offers several conditions that are attractive for U.S. investment. Through a variety of efforts, the U.S. government has already lent support to Venezuela's energy sector.

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## Factors Affecting Continued Increases in Venezuelan Oil Production

Venezuelan oil production peaked at 3.7 million barrels per day in 1970 and then gradually declined until 1985. This trend has been reversed in recent years. Production increased gradually from approximately 1.7 million barrels per day in 1985 to approximately 2.1 million barrels per day in 1990. By 1996, PDVSA plans to have increased production to approximately 3.3 million barrels per day. Production rates for 1980 through 1990, along with PDVSA's planned increases in production through 1996, are shown in table I.1.

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**Table I.1: Venezuelan Oil Production  
(1980-96)**

Barrels in millions		
Year	Average number of barrels per day	Percent change from previous year
1980	2.2	*
1981	2.1	-5
1982	1.9	-10
1983	1.8	-5
1984	1.8	0
1985	1.7	-6
1986	1.8	6
1987	1.8	0
1988	1.9	6
1989	1.9	0
1990	2.1	11
1991 planned	2.5	19
1992 planned	2.7	8
1993 planned	2.9	7
1994 planned	3.0	3
1995 planned	3.1	3
1996 planned	3.3	7

\*Not applicable.

Sources: The U.S. Department of Energy and PDVSA.

Our review indicates that Venezuela's success in meeting its 1996 production goal will be primarily affected by its ability to obtain investment capital, the cost of producing and refining heavy and extra-heavy crude oil, and the level of production quotas imposed by the Organization of Petroleum Exporting Countries (OPEC).<sup>3</sup>

**Capital Investment**

PDVSA stated that it would require about \$36 billion to expand its oil production, refining, exploration, and transportation capabilities.<sup>4</sup> As shown in table I.2, most of this investment capital is needed in Venezuela's production and refining sectors.

<sup>3</sup>OPEC was established in 1960 to negotiate with oil companies on matters of oil production, price, and future concession rights. It is made up of oil producing and exporting countries including Algeria, Ecuador, Gabon, Indonesia, Iran, Iraq, Kuwait, Libya, Nigeria, Qatar, Saudi Arabia, the United Arab Emirates, and Venezuela.

<sup>4</sup>This figure is included in PDVSA's overall capital needs of \$48 billion for its 6-year investment plan involving oil, petrochemicals, bitumen, coal, and liquid natural gas activities. PDVSA's 1991-96 investment plan was approved at its shareholders' meeting in December 1990. The 1997-97 investment plan will be decided on at the December 1991 shareholders' meeting.

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Table I.2: Venezuela's Oil Investment Needs for 1991-96

Dollars in billions		
Investment area	Cost	Percent of total
Production	\$16.7	47
Domestic refining	10.1	28
International refining	4.2	12
Exploration	1.7	5
Tanker fleet	1.2	3
Domestic market	.9	3
Other	.7	2
<b>Total</b>	<b>\$35.5</b>	<b>100</b>

Source: PDVSA.

As shown in this table, PDVSA plans to use about one-half of the required \$36 billion to maintain and increase overall production. PDVSA plans to increase its overall production by about 52 percent to meet its 1996 production goal of 3.3 million barrels per day. Most of this production expansion would be directed toward heavy and extra-heavy crude oil: PDVSA plans to increase production in these areas by over 140 percent (to approximately 1 million barrels per day).

PDVSA budgets 40 percent of its oil investment capital to increase domestic and international refining for all crude oil. Its goal is to increase refining by about 34 percent. Most of the capital would be used to expand heavy and extra-heavy crude oil refining by over 380 percent.

PDVSA also intends to expand its exploration activities to add approximately 5 billion barrels of lighter crude oils to its proven reserves.<sup>5</sup> Further, the company intends to purchase 22 new oil tankers to increase its earnings by transporting its own crude oil and petroleum products.

PDVSA plans to finance its investment needs through internal cash flow, international borrowing, and investment capital obtained from foreign or Venezuelan private investors. For part of its investment needs, PDVSA will assume direct international debt for the first time since the company was founded in 1975. PDVSA would also like foreign and private investors to provide about 5 percent of its oil investment needs through joint ventures.

<sup>5</sup>PDVSA plans to increase reserves by a total of 9 billion barrels: 5 billion barrels through exploration activities and 4 billion barrels through secondary recovery and extension of existing fields.

## Cost of Producing and Refining Heavy and Extra-Heavy Crude

To meet its 1996 production target, PDVSA will have to more than double its 1990 output of heavy and extra-heavy crude oil. PDVSA officials stated that achievement of this goal depended on the company's ability to develop and secure additional domestic and international refining capacity; there is a shortage of worldwide refining capacity for these crude oils. Achievement of this goal is also contingent upon PDVSA's ability to cover the higher costs of producing and refining heavy and extra-heavy oil. PDVSA pointed out that it was more expensive to produce and refine heavy and extra-heavy oil than lighter crude oils.

The differential in the cost of producing and refining heavy and lighter crude oils is due to the costly and sophisticated technologies needed to (1) pump heavy crude oil out of the ground, (2) remove heavy oil's high sulfur and metal content, and (3) perform the special processes required to convert heavy oils into conventional petroleum products, such as gasoline. PDVSA's 1990 average production costs for heavy crude oil were \$2.07 per barrel, compared with \$1.40 per barrel for light crude oil and \$1.05 per barrel for medium crude oil.<sup>6</sup>

It is even more expensive to produce and refine extra-heavy crude oil than heavy crude oil. PDVSA officials stated that they had produced extra-heavy crude oil (in 1990, extra-heavy crude oil production represented less than 1 percent of PDVSA's total production) and estimated production costs for extra-heavy crude oil at about \$2.80 per barrel. Unlike heavy crude oil, the extra-heavy crude must be upgraded before it can be refined. PDVSA estimates the cost to upgrade the extra-heavy crude into a synthetic and lighter crude oil to be about \$6 to \$8 per barrel. PDVSA officials project that it will cost about \$2.5 billion to construct a 100,000 barrel-per-day upgrading facility to process extra-heavy crude oil into a lighter oil. This lighter oil, in turn, can be refined into petroleum products such as gasoline, jet fuel, and diesel fuel. PDVSA officials stated that, on the basis of current world petroleum prices and its estimated production and upgrading costs, extra-heavy crude oil production and upgrading would be profitable. However, the economic viability of extra-heavy crude oil would be very sensitive to changes in world oil prices and processing costs.

## OPEC Production Quotas

At quarterly meetings, OPEC members establish production quota levels for each of the member countries. According to Venezuelan government officials, as a cofounding OPEC member, Venezuela supports adherence to

<sup>6</sup>According to PDVSA, its 1990 production costs for light crude oil were higher than for the medium crude because the company had to drill deeper wells, which increased its operating costs.

established OPEC production quotas. If crude oil production projections for OPEC members in the year 1996 are met and Venezuela obtains its traditional share of OPEC production, Venezuela's OPEC quota will be lower than its targeted production level. Consequently, Venezuela might have to negotiate for production quota levels that are higher than the country's traditional percentage of OPEC quotas. Venezuelan government officials expect that OPEC, in response to changes in world oil demand and supply, might increase Venezuela's quota levels or even eliminate the quota system sometime in the future. According to the U.S. Embassy in Caracas, as of September 1991, OPEC was operating, at least temporarily, without individual country quotas; however, this status could change in the future.

## Venezuela's Recent Petroleum-Related Investment Reforms

Under the administration of President Carlos Andres Perez, who took office in February 1989, Venezuela has undertaken significant measures to liberalize foreign investment. According to the Department of Commerce, because of these changes, in most sectors foreign investors are (1) allowed to hold 100 percent equity and (2) freed from government authorization requirements. However, these reforms do not extend to the petroleum industry. According to the Venezuelan Embassy in Washington, D.C., this industry is regulated by Venezuela's "Organic Law That Reserves to the State the Industry and Commerce of Hydrocarbons,"<sup>7</sup> commonly known as the "Nationalization Law of 1975." According to the Venezuelan Embassy, the Nationalization Law of 1975 permits foreign participation in a joint venture in the hydrocarbons sector if the joint venture is (1) found to be in the public interest, (2) controlled by the state, (3) limited in duration, and (4) authorized by the Venezuelan congress. Since Venezuela nationalized the petroleum industry in 1976 and up until 1991, PDVSA had not sought foreign investment in an oil exploration, production, or refining joint venture in Venezuela.

In 1991, the Venezuelan government instituted two reforms to encourage some foreign investment in petroleum-related joint ventures. First, PDVSA created the Office of Strategic Associations to negotiate joint ventures. The Office seeks to (1) obtain access to foreign markets and (2) attract private or foreign investment to construct and upgrade refineries for processing Venezuela's heavy and extra-heavy crude oil. In exchange for foreign market access and capital funds, PDVSA indicated that it would be willing to participate as a minority shareholder in any joint venture. PDVSA also suggested that foreign companies could possibly have the opportunity

<sup>7</sup>For the purposes of this law, "hydrocarbons" include only oil and natural gas.

to explore for light and medium crude oil. According to PDVSA officials, Venezuelan law allows such joint ventures on a case-by-case basis if certain requirements are met and congressional authorization is granted.

The Venezuelan congress's willingness to allow foreign investments in petroleum-related joint ventures is still unproven. In June 1991, the Venezuelan government submitted a proposal to its congress that would give Shell Oil (30 percent), Exxon (29 percent), and Mitsubishi (8 percent) equity ownership in a joint venture. This venture would be a \$3 billion liquefied natural gas export project called Cristobal Colon. PDVSA's subsidiary, Lagoven, S.A., would have 33 percent equity ownership in the project. However, according to Lagoven officials, under the terms of the joint venture Lagoven would have to consent to all key decisions before they were implemented. Such consent would satisfy Venezuelan law that the state maintain control of joint ventures in the hydrocarbons sector.

According to U.S. and Venezuelan government officials and industry representatives, the Cristobal Colon project would be significant for two reasons. First, it would mark the first direct foreign investment in the production and export of Venezuela's hydrocarbons since the government nationalized the oil and gas industry in 1976. Second, it is expected that the project would pave the way for similar joint ventures in the oil sector. As of November 1991, six foreign companies, including two U.S. firms, had signed letters of intent to study the feasibility of participating in joint ventures for, among other things, the marketing and refining of heavy and extra-heavy oil.

The second of the 1991 reforms was made by the Venezuelan congress. It reduced the tax rate from 67.7 to 30 percent on joint ventures between PDVSA and foreign companies for producing and refining heavy and extra-heavy crude oil.

We interviewed 22 U.S. petroleum companies that stated they would consider investing in Venezuela's petroleum industry; we sought their response to Venezuela's petroleum investment reforms. None of these companies had made investments in oil exploration, production, or refining in Venezuela since the recent reforms.

## Major Impediments to U.S. Investment

The 22 petroleum companies told us that although they would consider investing in Venezuela's petroleum industry, they were hesitant to do so. They cited several reasons. One concern was that Venezuela lacked clear guidelines on what petroleum-related activities foreign companies would be allowed to perform and under what contractual terms. For example, according to U.S. company representatives we spoke with, PDVSA is offering joint venture opportunities to produce and refine heavy and extra-heavy crude oil. However, it is not clear whether PDVSA will offer joint venture opportunities to explore and produce light and medium crude oils.

A number of the companies we interviewed said that they were not interested in producing and refining heavy and extra-heavy crude oil because they (1) believed heavy oil activities were economically marginal, (2) lacked experience producing heavy and extra-heavy crude oil, and/or (3) considered the technology for refining extra-heavy crude oil to be commercially unproven. In addition, a number of U.S. company representatives stated that they would not be interested in investing in heavy and extra-heavy crude oil joint ventures that linked production and refining activities because they did not perform refining activities. However, other companies stated that they might be interested in such ventures if PDVSA provided an incentive: the additional opportunity to explore and produce light and medium crude oils, for example.

Company representatives also stated that the Venezuelan government had not clarified the contractual terms of foreign companies' participation in joint ventures. For example, terms were vague with respect to ownership rights to oil production and reserves, repatriation of profits, and tax and accounting rules. A number of companies suggested that the Venezuelan government clarify the rules for investing in the petroleum sector. Specifically, they cited a need for legislation that specified (1) the parameters under which the Venezuelan congress would allow foreign investment and (2) the tax and investment rules applicable to foreign petroleum investors.

Companies also cited Venezuela's congressional authorization requirement as an impediment to joint venture arrangements with PDVSA. U.S. company representatives stated that this requirement delayed the implementation of a project and added the risk that the project might be rejected for political rather than economic reasons or the agreement might be changed in a way that could make the project uneconomical.

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All the companies that we spoke with identified Venezuela's high taxes on petroleum-related activities as one of the most significant factors discouraging them from investing in Venezuela. According to U.S. and Venezuelan government officials, the tax rate is 67.7 percent on all petroleum-related activities, except for the production and refining of heavy and extra-heavy crude oil and natural gas performed by joint ventures. For these areas, the Venezuelan congress recently lowered the tax rate to 30 percent.<sup>8</sup>

The lack of a U.S.-Venezuela tax treaty that would eliminate double taxation concerns most U.S. companies we interviewed. According to the Department of the Treasury, the United States and Venezuela are currently negotiating a tax treaty.

Concerns over the security of foreign assets in Venezuela's petroleum sector were cited as a deterrent to U.S. investment. According to U.S. company representatives that we spoke with, Venezuela nationalized petroleum assets in the past and they believed that the government of Venezuela could take future actions or decisions that could adversely affect foreign investments. For example, a number of U.S. company representatives were concerned that Venezuela might undertake a de facto nationalization by drastically increasing taxes in the future. According to the U.S. Embassy in Caracas, Venezuela's tax law differentiates activities performed in the petroleum industry from all other corporate activities. To prevent being subject to future discriminatory tax hikes applied solely to the petroleum sector, U.S. company representatives suggested that the Venezuelan government alter its tax laws so that petroleum joint ventures were taxed at the general corporate tax rate and not at the special petroleum tax rate.

PDVSA officials stated that they were aware of foreign investors' concerns stemming from Venezuela's 1976 nationalization of the petroleum industry. According to an official of PDVSA's subsidiary, Lagoven S.A., PDVSA agreed to add a clause in the Cristobal Colon project agreement that would protect the foreign partners against any discriminatory governmental actions, decisions, or legal or regulatory changes that would have an adverse economic impact on the joint venture or any of its partners. According to this official, this clause must still be accepted in principle by the Venezuelan congress. However, even if this condition were accepted

<sup>8</sup>According to PDVSA and Department of Energy officials, the effective tax rate for oil-related activities is actually higher than the 67.7 and 30 percent rates because, for taxation purposes, the income derived from crude oil and petroleum product exports is valued at 120 percent of its actual value.

by the Venezuelan congress, the Lagoven official stated that he did not think the clause would necessarily be included in every joint venture and, if it were, it would still need authorization on a case-by-case basis from the Venezuelan congress.

The majority of U.S. company representatives that we spoke with noted that a bilateral investment treaty would help provide increased investment protection. According to an official from the Office of the U.S. Trade Representative, the United States and Venezuela have discussed the benefits of a possible bilateral investment treaty, but they have not yet agreed to begin negotiations. Venezuela must agree to standards set out in a model U.S. bilateral investment treaty in order for negotiations to be successful. The United States has negotiated such treaties with other countries to help protect U.S. investors.

Of the 22 companies we spoke with, 19 cited a need for more effective judicial protection against actions taken by the Venezuelan government. Company representatives stated that the unavailability of international arbitration for U.S. investors making claims against the Venezuelan government was a barrier to U.S. investment in Venezuela.

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## **Factors That Encourage U.S. Investment**

U.S. and Venezuelan government and private officials stated that several factors provided strong incentives for U.S. investment in Venezuela's petroleum industry, should the investment impediments identified by U.S. companies be removed. These factors include the following:

- Venezuela's abundant crude oil reserves make investment attractive to U.S. oil companies. Venezuela ranks sixth in world oil reserves, with about 60 billion barrels of proven reserves (more than twice the amount of U.S. oil reserves).
- Venezuela has an established infrastructure to support its petroleum industry. This industry has 300 active oil fields, 27,465 miles of pipelines, and 6 domestic and 12 overseas refineries (4 of which are located in the United States). Furthermore, the Venezuelan petroleum industry uses up-to-date technology equivalent to that used by the U.S. petroleum industry and is considered by U.S. industry representatives to be an efficient oil company with skilled managers.
- Venezuela's proximity to the United States makes it economical for U.S. companies to transport and distribute crude oil and other products to North America.

- Venezuela has been a reliable source of oil for the United States. Venezuela has never participated in embargoes against the United States, and during the oil supply disruption resulting from Iraq's invasion of Kuwait, Venezuela increased oil production.
- Venezuela has had a stable democratic political system since 1958.

## **U.S. Efforts to Support Venezuela's Energy Sector**

The U.S. government has undertaken a variety of efforts to support Venezuela's energy sector:

- To date, the U.S. Export-Import Bank has extended about \$380 million in credit guarantees to PDVSA for imports of U.S. capital goods and services required for its various operating companies. An additional \$315 million in credit guarantees to PDVSA for oil- and gas-related projects is currently pending congressional review.
- In 1991, the Trade and Development Program financed \$400,000 of a \$1 million feasibility study that was carried out by a U.S. company for the construction of up to two oil refineries in Venezuela.<sup>9</sup>
- In 1991, the U.S. Department of Commerce sponsored and the Department of Energy participated in trade seminars and shows to inform U.S. oil companies about PDVSA's petroleum expansion plans and to promote U.S. petroleum equipment and services.

Since the beginning of the Persian Gulf crisis, a number of high-level U.S. government officials have visited Venezuela; the topic of oil has been raised in their meetings with Venezuelan officials. For example, during the Gulf crisis, the President of the United States and the Deputy Secretary of the Department of Energy visited Venezuela. In 1991, the Deputy Secretary of the Energy Department along with the President of the Overseas Private Investment Corporation, the Chairman of the U.S. Export-Import Bank, the Director of the U.S. Trade and Development Program, and the presidents of a number of U.S. companies including energy companies, accompanied the Secretary of Commerce on a Business Development Mission to Venezuela. According to the Commerce Department, the primary purpose of this mission was to promote greater bilateral trade and investment, including energy trade and investment. In addition, the Secretary of Commerce accompanied the Vice President of the United States on a separate visit to Venezuela, during which they discussed trade and

<sup>9</sup>The U.S. Trade and Development Program, an independent U.S. government agency, funds feasibility studies for major projects in middle income and developing countries where there is potential for exporting U.S. goods and services.

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investment issues with high-level Venezuelan government officials. The U.S. Trade Representative also visited Venezuela in 1991; she discussed a variety of trade and investment issues that could affect the petroleum sector with Venezuelan government officials.

In 1991, the United States and Venezuela signed a bilateral Framework Agreement on Trade and Investment, under the Enterprise for the Americas Initiative.<sup>10</sup> This agreement formalized cooperation between the United States and Venezuela and established a Council to improve, and make more routine, consultations on trade and investment issues. Among other things, the agreement may promote Council discussions of trade- and investment-related energy issues and lend support to the efforts of the U.S. Department of Energy and the Venezuelan government to consult on energy matters. Since 1985, a U.S. interagency delegation chaired by the Department of Energy and officials from the Venezuelan government have met informally approximately every 6 months to discuss energy issues. For example, during the April 1991 bilateral energy meeting the issues discussed included international oil markets, each country's petroleum strategies, and bilateral concerns such as oil investment opportunities in the two countries. In addition, the Department of Energy and its Venezuelan counterpart have been jointly performing energy research and development since 1980.

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<sup>10</sup>In June 1990, the President proposed the Enterprise for the Americas Initiative to increase the potential for trade and domestic and foreign investment in Latin America. The Initiative called for the development of a bilateral framework agreement as a stepping stone toward a free trade agreement.

# The 22 Companies Interviewed by GAO

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**Amoco Corporation**  
Chicago, IL

**Anglo-Suisse L.P.**  
Houston, TX

**BP Exploration Inc.**  
Houston, TX

**Chevron Corporation**  
San Francisco, CA

**Eastern Minerals Corporation**  
Kenner, LA

**Enron Exploration Company**  
Houston, TX

**Exxon Company International**  
Florham Park, NJ

**Michel T. Halbouty Energy Company**  
Houston, TX

**Kerr-McGee Corporation**  
Houston, TX

**Marathon Oil Company**  
Houston, TX

**Mobil Oil Corporation**  
Fairfax, VA

**Occidental International Exploration  
and Production Company**  
Bakersfield, CA

**Olympic Oil & Gas Corporation**  
Houston, TX

**Petro-Hunt Corporation**  
Dallas, TX

**Phillips Petroleum Company**  
Bartlesville, OK

**Stallion Oil Company**  
San Antonio, TX

**Tesoro Petroleum Corporation**  
San Antonio, TX

**Texaco Inc.**  
White Plains, NY

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**Appendix II**  
**The 23 Companies Interviewed by GAO**

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**Union Pacific International Petroleum Company**  
**Fort Worth, TX**  
**Unocal Corporation**  
**Los Angeles, CA**  
**Ward Petroleum Corporation**  
**Enid, OK**  
**Yates Company International**  
**Roswell, NM**

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# Major Contributors to This Report

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